

REMARKS

Reconsideration of the instant application in view of the above amendment and the following remarks is respectfully requested.

Claims 10-17 and 19-24, and 26-31 are pending. Claim 24 is amended by incorporating the limitation of claim 25. Claim 25 is canceled. Applicant submits that the above amendment does not raise new issue for further consideration or search. Applicant therefore respectfully requests that the amendment be entered.

Claims 10-17 and 19-31 are rejected under 102(e) as being anticipated by U.S. Patent No. 6,891,747 to Bez (hereafter "Bez").

Figures 14-15 of Bez, relied upon by the Examiner, are presented in the instant application as a contrast to the inventive elements. Applicant notes that he is a co-inventor of Bez. Figure 25 illustrates a preferred embodiment of the instant invention. In contrast to the device shown in Figure 14 of Bez, a sealing structure (e.g., barrier layer 39) is positioned directly on a delimiting structure 49. The sealing structure, together with the delimiting structure, seals the phase change material 38a inside the aperture 56. There is no intervening layer between the sealing structure 39 and the delimiting structure 49.

Claim 10 of the instant invention is directed to a phase change memory cell comprising a sealing structure directly lying on a delimiting structure. This feature is not disclosed or suggested in Bez, despite the Examiner's assertion that 39 and 40 of Figure 14 in Bez are a "sealing structure". In Bez, layer 39 is a barrier layer overlying a chalcogenic material layer 38; and layer 40 is a metal layer overlying the barrier layer 39. The Examiner identifies layers 27 and 28 as the delimiting structure. Applicant notes that layer 39 does not lie directly on the delimiting structure 27. Instead, a chalcogenic layer 38 is positioned in between layer 39 and layer 27. Consequently, layer 39 does not perform a sealing function. As shown in Figure 14 of Bez, the chalcogenic layer 38 is not sealed within an enclosure and therefore is susceptible to detachment.

Similarly, independent claims 20, 24 (as amended) and 29 also comprise a sealing structure lying directly on a delimiting structure. For the same reason as set forth above, they are

Application No. 10/824,631
Reply to Office Action dated January 27, 2006


also novel in view of Bez, as are dependent claims 11-17, 21-23, 26-28 and 30-31. Applicant therefore requests the above rejection be withdrawn.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



Hai Han, Ph.D.

Registration No. 54,150

HXH:lcs

Enclosure:
Postcard

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

743283_1.DOC